What is claimed is:

1. Nucleic acid, characterised in that it codes for the non-selective cation channel OTRPC4 or for a fragment, a functional variant, an allelic variant or a subunit, or variants of said nucleic acid on the basis of the degenerative code or a nucleic acid which is able to hybridise with said nucleic acid.

2. Nucleic acid according to claim 1, characterised in that it is RNA.

3. Nucleic acid according to claim 1, characterised in that it is DNA.

4. Nucleic acid according to one of claims 1 or 3, characterised in that it contains 5' or 3' or 5' and 3' untranslated regions.

5. Nucleic acid according to one of claims 1 to 4, characterised in that it codes for a fragment of the non-selective cation channel OTRPC4.

6 Nucleic acid according to one of claims 1 to 5, characterised in that it codes for a functional variant of the non-selective cation channel OTRPC4.

7. Nucleic acid according to one of claims 1 to 6, characterised in that it codes for an allelic variant of the non-selective cation channel OTRPC4.

8. Nucleic acid according to one of claims 1 to 7, characterised in that it codes for variants of nucleic acid on the basis of the degenerative code.

9. Nucleic acid, characterised in that it is capable of hybridising with a nucleic acid according to one of claims 1 to 8 under stringent conditions.

10. Nucleic acid according to one of claims 1 to 9, characterised in that the said non-selective cation channel OTRPC4 is a mammalian cation channel.

11. Nucleic acid according to one of claims 1 to 10, characterised in that the said non-selective cation channel OTRPC4 is murine.

12. Nucleic acid according to one of claims 1 to 11, characterised in that the said non-selective cation channel OTRPC4 is human.

13. Nucleic acid, characterised in that it contains the sequence

CTCTCACCGCCTACTACCAGCCGCTGGAGGGCACAATGGCGGATTCCAGCGAAGGCCC
CCGCGCGGGGCCCGGGGAGGTGGCTGAGCTCCCCGGGGATGAGAGTGGCACCCCAGG
TGGGGAGGCTTTTCCTCTCTCCTCCCTGGCCAATCTGTTTGAGGGGGAGGATGGCTCCC
TTTCGCCCTCACCGGCTGATGCCAGTCGCCCTGCTGGCCCAGGCGATGGGCGACCAAA
TCTGCGCATGAAGTTCCAGGGCGCCTTCCGCAAGGGGGTGCCCAACCCCATCGATCTG
CTGGAGTCCACCCTATATGAGTCCTCGGTGGTGCCTGGGCCCAAGAAAGCACCCATGG
ACTCACTGTTTGACTACGGCACCTATCGTCACCACTCCAGTGACAACAAGAGGTGGAG
GAAGAAGATCATAGAGAAGCAGCCGCAGAGCCCCAAAGCCCCTGCCCCTCAGCCGCC
CCCCATCCTCAAAGTCTTCAACCGGCCTATCCTCTTTGACATCGTGTCCCGGGGCTCCA
CTGCTGACCTGGACGGGCTGCTCCCATTCTTGCTGACCCACAAGAAACGCCTAACTGA
TGAGGAGTTTCGAGAGCCATCTACGGGGAAGACCTGCCTGCCCAAGGCCTTGCTGAAC
CTGAGCAATGGCCGCAACGACACCATCCCTGTGCTGCTGGACATCGCGGAGCGCACCG
GCAACATGCGGGAGTTCATTAACTCGCCCTTCCGTGACATCTACTATCGAGGTCAGAC
AGCCCTGCACATCGCCATTGAGCGTCGCTGCAAACACTACGTGGAACTTCTCGTGGCC
CAGGGAGCTGATGTCCAcGCCCAGGCCCGTGGGCGCTTCTTCCAGCCCAAGGATGAGG
GGGGCTACTTCTACTTTGGGGAGCTGCCCCTGTCGCTGGCTGCCTGCACCAACCAGCCC
CACATTGTCAACTACCTGACGGAGAACCCCCACAAGAAGGCGGACATGCGGCGCCAG
GACTCGCGAGGCAACACAGTGCTGCATGCGCTGGTGGCCATTGCTGACAACACCCGTG
AGAACACCAAGTTTGTTACCAAGATGTACGACCTGCTGCTGCTCAAGTGTGCCCGCCT
CTTCCCCGACAGCAACCTGGAGGCCGTGCTCAACAACGACGGCCTCTCGCCCCTCATG
ATGGCTGCCAAGACGGGCAAGATTGGGATCTTTCAGCACATCATCCGGCGGGAGGTGA
CGGATGAGGACACACGGCACCTGTCCCGCAAGTTCAAGGACTGGGCCTATGGGCCAGT
GTATTCCTCGCTTTATGACCTCTCCTCCCTGGACACGTGTGGGGAAGAGGCCTCCGTGC
TGGAGATCCTGGTGTACAACAGCAAGATTGAGAACCGCCACGAGATGCTGGCTGTGGA
GCCCATCAATGAACTGCTGCGGGACAAGTGGCGCAAGTTCGGGGCCGTCTCCTTCTAC
ATCAACGTGGTCTCCTACCTGTGTGCCATGGTCATCTTCACTCTCACCGCCTACTACCA
GCCGCTGGAGGGCACACCGCCGTACCCTTACCGCACCACGGTGGACTACCTGCGGCTG

GCTGGCGAGGTCATTACGCTCTTCACTGGGGTCCTGTTCTTCTTCACCAACATCAAAGA
CTTGTTCATGAAGAAATGCCCTGGAGTGAATTCTCTCTTCATTGATGGCTCCTTCCAGC
TGCTCTACTTCATCTACTCTGTCCTGGTGATCGTCTCAGCAGCCCTCTACCTGGCAGGG
ATCGAGGCCTACCTGGCCGTGATGGTCTTTGCCCTGGTCCTGGGCTGGATGAATGCCCT
TTACTTCACCCGTGGGCTGAAGCTGACGGGGACCTATAGCATCATGATCCAGAAGATT
CTCTTCAAGGACCTTTTCCGATTCCTGCTCGTCTACTTGCTCTTCATGATCGGCTACGCT
TCAGCCCTGGTCTCCCTCCTGAACCCGTGTGCCAACATGAAGGTGTGCAATGAGGACC
AGACCAACTGCACAGTGCCCACTTACCCCTCGTGCCGTGACAGCGAGACCTTCAGCAC
CTTCCTCCTGGACCTGTTTAAGCTGACCATCGGCATGGGCGACCTGGAGATGCTGAGC
AGCACCAAGTACCCCGTGGTCTTCATCATCCTGCTGGTGACCTACATCATCCTCACCTT
TGTGCTGCTCCTCAACATGCTCATTGCCCTCATGGGCGAGACAGTGGGCCAGGTCTCCA
AGGAGAGCAAGCACATCTGGAAGCTGCAGTGGGCCACCACCATCCTGGACATTGAGC
GCTCCTTCCCCGTATTCCTGAGGAAGGCCTTCCGCTCTGGGGAGATGGTCACCGTGGGC
AAGAGCTCGGACGGCACTCCTGACCGCAGGTGGTGCTTCAGGGTGGATGAGGTGAACT
GGTCTCACTGGAACCAGAACTTGGGCATCATCAACGAGGACCCGGGCAAGAATGAGA
CCTACCAGTATTATGGCTTCTCGCATACCGTGGGCCGCCTCCGCAGGGATCGCTGGTCC
TCGGTGGTACCCCGCGTGGTGGAACTGAACAAGAACTCGAACCCGGACGAGGTGGTG
GTGCCTCTGGACAGCATGGGGAACCCCCGCTGCGATGGCCACCAGCAGGGTTACCCCC
GCAAGTGGAGGACTGAGGACGCCCCGCTCTAGGGACTGCAGCCCAGCCCCAGCTTCTC
TGCCCACTCATTTCTAGTCCAGCCGCATTTCAGCAGTGCCTTCTGGGGTGTCCCCCCAC
ACCCTGCTTTGGCCCCAGAGGCGAGGGACCAGTGGAGGTGCCAGGGAGGCCCCAGGA
CCCTGTGGTCCCCTGGCTCTGCCTCCCCACCCTGGGGTGGGGGCTCCCGGCCACCTGTC
TTGCTCCTATGGAGTCACATAAGCCAACGCCAGAGCCCCTCCACCTCAGGCCCCAGCC
CCTGCCTCTCCATTATTTATTTGCTCTGCTCTCAGGAAGCGACGTGACCCCTGCCCCAG
CTGGAACCTGGCAGAGGCCTTAGGACCCCGTTCCAAGTGCACTGCCCGGCCAAGCCCC
AGCCTCAGCCTGCGCCTGAGCTGCATGCGCCACCATTTTTGGCAGCGTGGCAGCTTTGC
AAGGGGCTGGGGCCCTCGGCGTGGGGCCATGCCTTCTGTGTGTTCTGTAGTGTCTGGG
ATTTGCCGGTGCTCAATAAATGTTTATTCATTGACGGTGAAAAAAAAAAAAAAAAAA
or a partial sequence thereof, a nucleic acid which is capable of hybridising with said sequence under stringent conditions, an allelic variant or a functional variant of said sequence or a variant of nucleic acid on the basis of the degenerative code.

14. Nucleic acid, characterised in that it has the sequence
CTCTCACCGCCTACTACCAGCCGCTGGAGGGCACAATGGCGGATTCCAGCGAAGGCCC
CCGCGCGGGGCCCGGGGAGGTGGCTGAGCTCCCCGGGGATGAGAGTGGCACCCCAGG

TGGGGAGGCTTTTCCTCTCTCCTCCCTGGCCAATCTGTTTGAGGGGGAGGATGGCTCCC
TTTCGCCCTCACCGGCTGATGCCAGTCGCCCTGCTGGCCCAGGCGATGGGCGACCAAA
TCTGCGCATGAAGTTCCAGGGCGCCTTCCGCAAGGGGGTGCCCAACCCCATCGATCTG
CTGGAGTCCACCCTATATGAGTCCTCGGTGGTGCCTGGGCCCAAGAAAGCACCCATGG
ACTCACTGTTTGACTACGGCACCTATCGTCACCACTCCAGTGACAACAAGAGGTGGAG
GAAGAAGATCATAGAGAAGCAGCCGCAGAGCCCCAAAGCCCCTGCCCCTCAGCCGCC
CCCCATCCTCAAAGTCTTCAACCGGCCTATCCTCTTTGACATCGTGTCCCGGGGCTCCA
CTGCTGACCTGGACGGGCTGCTCCCATTCTTGCTGACCCACAAGAAACGCCTAACTGA
TGAGGAGTTTCGAGAGCCATCTACGGGGAAGACCTGCCTGCCCAAGGCCTTGCTGAAC
CTGAGCAATGGCCGCAACGACACCATCCCTGTGCTGCTGGACATCGCGGAGCGCACCG
GCAACATGCGGGAGTTCATTAACTCGCCCTTCCGTGACATCTACTATCGAGGTCAGAC
AGCCCTGCACATCGCCATTGAGCGTCGCTGCAAACACTACGTGGAACTTCTCGTGGCC
CAGGGAGCTGATGTCCACGCCCAGGCCCGTGGGCGCTTCTTCCAGCCCAAGGATGAGG
GGGGCTACTTCTACTTTGGGGAGCTGCCCCTGTCGCTGGCTGCCTGCACCAACCAGCCC
CACATTGTCAACTACCTGACGGAGAACCCCCACAAGAAGGCGGACATGCGGCGCCAG
GACTCGCGAGGCAACACAGTGCTGCATGCGCTGGTGGCCATTGCTGACAACACCCGTG
AGAACACCAAGTTTGTTACCAAGATGTACGACCTGCTGCTGCTCAAGTGTGCCCGCCT
CTTCCCCGACAGCAACCTGGAGGCCGTGCTCAACAACGACGGCCTCTCGCCCCTCATG
ATGGCTGCCAAGACGGGCAAGATTGGGATCTTTCAGCACATCATCCGGCGGGAGGTGA
CGGATGAGGACACACGGCACCTGTCCCGCAAGTTCAAGGACTGGGCCTATGGGCCAGT
GTATTCCTCGCTTTATGACCTCTCCTCCCTGGACACGTGTGGGGAAGAGGCCTCCGTGC
TGGAGATCCTGGTGTACAACAGCAAGATTGAGAACCGCCACGAGATGCTGGCTGTGGA
GCCCATCAATGAACTGCTGCGGGACAAGTGGCGCAAGTTCGGGGCCGTCTCCTTCTAC
ATCAACGTGGTCTCCTACCTGTGTGCCATGGTCATCTTCACTCTCACCGCCTACTACCA
GCCGCTGGAGGGCACACCGCCGTACCCTTACCGCACCACGGTGGACTACCTGCGGCTG
GCTGGCGAGGTCATTACGCTCTTCACTGGGGTCCTGTTCTTCTTCACCAACATCAAAGA
CTTGTTCATGAAGAAATGCCCTGGAGTGAATTCTCTCTTCATTGATGGCTCCTTCCAGC
TGCTCTACTTCATCTACTCTGTCCTGGTGATCGTCTCAGCAGCCCTCTACCTGGCAGGG
ATCGAGGCCTACCTGGCCGTGATGGTCTTTGCCCTGGTCCTGGGCTGGATGAATGCCCT
TTACTTCACCCGTGGGCTGAAGCTGACGGGGACCTATAGCATCATGATCCAGAAGATT
CTCTTCAAGGACCTTTTCCGATTCCTGCTCGTCTACTTGCTCTTCATGATCGGCTACGCT
TCAGCCCTGGTCTCCCTCCTGAACCCGTGTGCCAACATGAAGGTGTGCAATGAGGACC
AGACCAACTGCACAGTGCCCACTTACCCCTCGTGCCGTGACAGCGAGACCTTCAGCAC
CTTCCTCCTGGACCTGTTTAAGCTGACCATCGGCATGGGCGACCTGGAGATGCTGAGC
AGCACCAAGTACCCCGTGGTCTTCATCATCCTGCTGGTGACCTACATCATCCTCACCTT
TGTGCTGCTCCTCAACATGCTCATTGCCCTCATGGGCGAGACAGTGGGCCAGGTCTCCA

AGGAGAGCAAGCACATCTGGAAGCTGCAGTGGGCCACCACCATCCTGGACATTGAGC
GCTCCTTCCCCGTATTCCTGAGGAAGGCCTTCCGCTCTGGGGAGATGGTCACCGTGGGC
AAGAGCTCGGACGGCACTCCTGACCGCAGGTGGTGCTTCAGGGTGGATGAGGTGAACT
GGTCTCACTGGAACCAGAACTTGGGCATCATCAACGAGGACCCGGGCAAGAATGAGA
CCTACCAGTATTATGGCTTCTCGCATACCGTGGGCCGCCTCCGCAGGGATCGCTGGTCC
TCGGTGGTACCCCGCGTGGTGGAACTGAACAAGAACTCGAACCCGGACGAGGTGGTG
GTGCCTCTGGACAGCATGGGGAACCCCCGCTGCGATGGCCACCAGCAGGGTTACCCCC
GCAAGTGGAGGACTGAGGACGCCCCGCTCTAGGGACTGCAGCCCAGCCCCAGCTTCTC
TGCCCACTCATTTCTAGTCCAGCCGCATTTCAGCAGTGCCTTCTGGGGTGTCCCCCCAC
ACCCTGCTTTGGCCCCAGAGGCGAGGGACCAGTGGAGGTGCCAGGGAGGCCCCAGGA
CCCTGTGGTCCCCTGGCTCTGCCTCCCCACCCTGGGGTGGGGGCTCCCGGCCACCTGTC
TTGCTCCTATGGAGTCACATAAGCCAACGCCAGAGCCCCTCCACCTCAGGCCCCAGCC
CCTGCCTCTCCATTATTTATTTGCTCTGCTCTCAGGAAGCGACGTGACCCCTGCCCCAG
CTGGAACCTGGCAGAGGCCTTAGGACCCCGTTCCAAGTGCACTGCCCGGCCAAGCCCC
AGCCTCAGCCTGCGCCTGAGCTGCATGCGCCACCATTTTTGGCAGCGTGGCAGCTTTGC
AAGGGGCTGGGGCCCTCGGCGTGGGGCCATGCCTTCTGTGTGTTCTGTAGTGTCTGGG
ATTTGCCGGTGCTCAATAAATGTTTATTCATTGACGGTGAAAAAAAAAAAAAAAAAA
.

15. Nucleic acid, characterised in that it contains the sequence
ATGGCGGATTCCAGCGAAGGCCCCCGCGCGGGGCCCGGGGAGGTGGCTGAGCTCCCC
GGGGATGAGAGTGGCACCCCAGGTGGGGAGGCTTTTCCTCTCTCCTCCCTGGCCAATC
TGTTTGAGGGGGAGGATGGCTCCCTTTCGCCCTCACCGGCTGATGCCAGTCGCCCTGCT
GGCCCAGGCGATGGGCGACCAAATCTGCGCATGAAGTTCCAGGGCGCCTTCCGCAAGG
GGGTGCCCAACCCCATCGATCTGCTGGAGTCCACCCTATATGAGTCCTCGGTGGTGCCT
GGGCCCAAGAAAGCACCCATGGACTCACTGTTTGACTACGGCACCTATCGTCACCACT
CCAGTGACAACAAGAGGTGGAGGAAGAAGATCATAGAGAAGCAGCCGCAGAGCCCCA
AAGCCCCTGCCCCTCAGCCGCCCCCCATCCTCAAAGTCTTCAACCGGCCTATCCTCTTT
GACATCGTGTCCCGGGGCTCCACTGCTGACCTGGACGGGCTGCTCCCATTCTTGCTGAC
CCACAAGAAACGCCTAACTGATGAGGAGTTTCGAGAGCCATCTACGGGGAAGACCTG
CCTGCCCAAGGCCTTGCTGAACCTGAGCAATGGCCGCAACGACACCATCCCTGTGCTG
CTGGACATCGCGGAGCGCACCGGCAACATGCGGGAGTTCATTAACTCGCCCTTCCGTG
ACATCTACTATCGAGGTCAGACAGCCCTGCACATCGCCATTGAGCGTCGCTGCAAACA
CTACGTGGAACTTCTCGTGGCCCAGGGAGCTGATGTCCAcGCCCAGGCCCGTGGGCGC
TTCTTCCAGCCCAAGGATGAGGGGGGCTACTTCTACTTTGGGGAGCTGCCCCTGTCGCT
GGCTGCCTGCACCAACCAGCCCCACATTGTCAACTACCTGACGGAGAACCCCCACAAG

AAGGCGGACATGCGGCGCCAGGACTCGCGAGGCAACACAGTGCTGCATGCGCTGGTG
GCCATTGCTGACAACACCCGTGAGAACACCAAGTTTGTTACCAAGATGTACGACCTGC
TGCTGCTCAAGTGTGCCCGCCTCTTCCCCGACAGCAACCTGGAGGCCGTGCTCAACAA
CGACGGCCTCTCGCCCCTCATGATGGCTGCCAAGACGGGCAAGATTGGGATCTTTCAG
CACATCATCCGGCGGGAGGTGACGGATGAGGACACACGGCACCTGTCCCGCAAGTTCA
AGGACTGGGCCTATGGGCCAGTGTATTCCTCGCTTTATGACCTCTCCTCCCTGGACACG
TGTGGGGAAGAGGCCTCCGTGCTGGAGATCCTGGTGTACAACAGCAAGATTGAGAACC
GCCACGAGATGCTGGCTGTGGAGCCCATCAATGAACTGCTGCGGGACAAGTGGCGCA
AGTTCGGGGCCGTCTCCTTCTACATCAACGTGGTCTCCTACCTGTGTGCCATGGTCATC
TTCACTCTCACCGCCTACTACCAGCCGCTGGAGGGCACACCGCCGTACCCTTACCGCAC
CACGGTGGACTACCTGCGGCTGGCTGGCGAGGTCATTACGCTCTTCACTGGGGTCCTGT
TCTTCTTCACCAACATCAAAGACTTGTTCATGAAGAAATGCCCTGGAGTGAATTCTCTC
TTCATTGATGGCTCCTTCCAGCTGCTCTACTTCATCTACTCTGTCCTGGTGATCGTCTCA
GCAGCCCTCTACCTGGCAGGGATCGAGGCCTACCTGGCCGTGATGGTCTTTGCCCTGGT
CCTGGGCTGGATGAATGCCCTTTACTTCACCCGTGGGCTGAAGCTGACGGGGACCTAT
AGCATCATGATCCAGAAGATTCTCTTCAAGGACCTTTTCCGATTCCTGCTCGTCTACTT
GCTCTTCATGATCGGCTACGCTTCAGCCCTGGTCTCCCTCCTGAACCCGTGTGCCAACA
TGAAGGTGTGCAATGAGGACCAGACCAACTGCACAGTGCCCACTTACCCCTCGTGCCG
TGACAGCGAGACCTTCAGCACCTTCCTCCTGGACCTGTTTAAGCTGACCATCGGCATGG
GCGACCTGGAGATGCTGAGCAGCACCAAGTACCCCGTGGTCTTCATCATCCTGCTGGT
GACCTACATCATCCTCACCTTTGTGCTGCTCCTCAACATGCTCATTGCCCTCATGGGCG
AGACAGTGGGCCAGGTCTCCAAGGAGAGCAAGCACATCTGGAAGCTGCAGTGGGCCA
CCACCATCCTGGACATTGAGCGCTCCTTCCCCGTATTCCTGAGGAAGGCCTTCCGCTCT
GGGGAGATGGTCACCGTGGGCAAGAGCTCGGACGGCACTCCTGACCGCAGGTGGTGC
TTCAGGGTGGATGAGGTGAACTGGTCTCACTGGAACCAGAACTTGGGCATCATCAACG
AGGACCCGGGCAAGAATGAGACCTACCAGTATTATGGCTTCTCGCATACCGTGGGCCG
CCTCCGCAGGGATCGCTGGTCCTCGGTGGTACCCCGCGTGGTGGAACTGAACAAGAAC
TCGAACCCGGACGAGGTGGTGGTGCCTCTGGACAGCATGGGGAACCCCCGCTGCGATG
GCCACCAGCAGGGTTACCCCCGCAAGTGGAGGACTGAGGACGCCCCGCTCTAG

or a partial sequence thereof, a nucleic acid which is capable of hybridising with said sequence under stringent conditions, an allelic variant or a functional variant of said sequence or a variant of nucleic acid on the basis of the degenerative code.

16. Nucleic acid, characterised in that it has the sequence

ATGGCGGATTCCAGCGAAGGCCCCCGCGCGGGGCCCGGGGAGGTGGCTGAGCTCCCC
GGGGATGAGAGTGGCACCCCAGGTGGGGAGGCTTTTCCTCTCTCCTCCCTGGCCAATC
TGTTTGAGGGGGAGGATGGCTCCCTTTCGCCCTCACCGGCTGATGCCAGTCGCCCTGCT
GGCCCAGGCGATGGGCGACCAAATCTGCGCATGAAGTTCCAGGGCGCCTTCCGCAAGG
GGGTGCCCAACCCCATCGATCTGCTGGAGTCCACCCTATATGAGTCCTCGGTGGTGCCT
GGGCCCAAGAAAGCACCCATGGACTCACTGTTTGACTACGGCACCTATCGTCACCACT
CCAGTGACAACAAGAGGTGGAGGAAGAAGATCATAGAGAAGCAGCCGCAGAGCCCCA
AAGCCCCTGCCCCTCAGCCGCCCCCCATCCTCAAAGTCTTCAACCGGCCTATCCTCTTT
GACATCGTGTCCCGGGGCTCCACTGCTGACCTGGACGGGCTGCTCCCATTCTTGCTGAC
CCACAAGAAACGCCTAACTGATGAGGAGTTTCGAGAGCCATCTACGGGGAAGACCTG
CCTGCCCAAGGCCTTGCTGAACCTGAGCAATGGCCGCAACGACACCATCCCTGTGCTG
CTGGACATCGCGGAGCGCACCGGCAACATGCGGGAGTTCATTAACTCGCCCTTCCGTG
ACATCTACTATCGAGGTCAGACAGCCCTGCACATCGCCATTGAGCGTCGCTGCAAACA
CTACGTGGAACTTCTCGTGGCCCAGGGAGCTGATGTCCAcGCCCAGGCCCGTGGGCGC
TTCTTCCAGCCCAAGGATGAGGGGGGCTACTTCTACTTTGGGGAGCTGCCCCTGTCGCT
GGCTGCCTGCACCAACCAGCCCCACATTGTCAACTACCTGACGGAGAACCCCCACAAG
AAGGCGGACATGCGGCGCCAGGACTCGCGAGGCAACACAGTGCTGCATGCGCTGGTG
GCCATTGCTGACAACACCCGTGAGAACACCAAGTTTGTTACCAAGATGTACGACCTGC
TGCTGCTCAAGTGTGCCCGCCTCTTCCCCGACAGCAACCTGGAGGCCGTGCTCAACAA
CGACGGCCTCTCGCCCCTCATGATGGCTGCCAAGACGGGCAAGATTGGGATCTTTCAG
CACATCATCCGGCGGGAGGTGACGGATGAGGACACACGGCACCTGTCCCGCAAGTTCA
AGGACTGGGCCTATGGGCCAGTGTATTCCTCGCTTTATGACCTCTCCTCCCTGGACACG
TGTGGGGAAGAGGCCTCCGTGCTGGAGATCCTGGTGTACAACAGCAAGATTGAGAACC
GCCACGAGATGCTGGCTGTGGAGCCCATCAATGAACTGCTGCGGGACAAGTGGCGCA
AGTTCGGGGCCGTCTCCTTCTACATCAACGTGGTCTCCTACCTGTGTGCCATGGTCATC
TTCACTCTCACCGCCTACTACCAGCCGCTGGAGGGCACACCGCCGTACCCTTACCGCAC
CACGGTGGACTACCTGCGGCTGGCTGGCGAGGTCATTACGCTCTTCACTGGGGTCCTGT
TCTTCTTCACCAACATCAAAGACTTGTTCATGAAGAAATGCCCTGGAGTGAATTCTCTC
TTCATTGATGGCTCCTTCCAGCTGCTCTACTTCATCTACTCTGTCCTGGTGATCGTCTCA
GCAGCCCTCTACCTGGCAGGGATCGAGGCCTACCTGGCCGTGATGGTCTTTGCCCTGGT
CCTGGGCTGGATGAATGCCCTTTACTTCACCCGTGGGCTGAAGCTGACGGGGACCTAT
AGCATCATGATCCAGAAGATTCTCTTCAAGGACCTTTTCCGATTCCTGCTCGTCTACTT
GCTCTTCATGATCGGCTACGCTTCAGCCCTGGTCTCCCTCCTGAACCCGTGTGCCAACA
TGAAGGTGTGCAATGAGGACCAGACCAACTGCACAGTGCCCACTTACCCCTCGTGCCG
TGACAGCGAGACCTTCAGCACCTTCCTCCTGGACCTGTTTAAGCTGACCATCGGCATGG
GCGACCTGGAGATGCTGAGCAGCACCAAGTACCCCGTGGTCTTCATCATCCTGCTGGT

GACCTACATCATCCTCACCTTTGTGCTGCTCCTCAACATGCTCATTGCCCTCATGGGCG AGACAGTGGGCCAGGTCTCCAAGGAGAGCAAGCACATCTGGAAGCTGCAGTGGGCCA CCACCATCCTGGACATTGAGCGCTCCTTCCCCGTATTCCTGAGGAAGGCCTTCCGCTCT GGGGAGATGGTCACCGTGGGCAAGAGCTCGGACGGCACTCCTGACCGCAGGTGGTGC TTCAGGGTGGATGAGGTGAACTGGTCTCACTGGAACCAGAACTTGGGCATCATCAACG AGGACCCGGGCAAGAATGAGACCTACCAGTATTATGGCTTCTCGCATACCGTGGGCCG CCTCCGCAGGGATCGCTGGTCCTCGGTGGTACCCCGCGTGGTGGAACTGAACAAGAAC TCGAACCCGGACGAGGTGGTGGTGCCTCTGGACAGCATGGGGAACCCCCGCTGCGATG GCCACCAGCAGGGTTACCCCCGCAAGTGGAGGACTGAGGACGCCCCGCTCTAG.

17. Nucleic acid, characterised in that it comprises the sequence GGCCACGCGTCGACTAGTACGGGGGGGGGGGGGGGGTGGCRGSRGGAKCAGGACTC GGCCGGAGGGATCAGGAAGCGGCGGCGCTGCGCCCGCGTCCTGAGGCTGAGAAGTAC AAACAGATCTGGGTCCAGTATGGCAGATCCTGGTGATGGTCCCCGTGCAGCGCCTGGG GAGGTGGCTGAGCCCCCTGGAGATGAGAGTGGTACCTCTGGTGGGGAGGCCTTCCCCC TCTCTTCCCTGGCCAATCTGTTTGAGGGGGAGGAAGGCTCCTCTTCTCTTTCCCCGGTG GATGCTAGCCGCCCTGCTGGCCCTGGCGATGGACGTCCAAACCTGCGTATGAAGTTCC AGGGCGCTTTCCGCAAGGGGGTTCCCAACCCCATTGACCTGTTGGAGTCCACCCGGTA CGAGTCCTCAGTAGTGCCTGGGCCCAAGAAAGCGCCCATGGATTCCTTGTTCGACTAC GGCACTTACCGTCACCACCCCAGTGACAACAAGAGATGGAGGAGAAAGGTCGTGGAG AAGCAGCCACAGAGCCCCAAAGCTCCTGCACCCCAGCCACCCCCCATCCTCAAAGTCT TCAATCGGCCCATCCTCTTTGACATTGTGTCCCGGGGCTCCACTGCGGACCTAGATGGA CTGCTCTCCTTCTTGTTGACCCACAAGAAGCGCCTGACTGATGAGGAGTTCCGGGAGC CGTCCACGGGGAAGACCTGCCTGCCCAAGGCGCTGCTGAACCTAAGCAACGGGCGCA ACGACACCATCCCGGTGTTGCTGGACATTGCGGAGCGCACCGGCAACATGCGTGAATT CATCAACTCGCCCTTCAGAGACATCTACTACCGAGGCCAGACATCCCTGCACATTGCC ATCGAACGGCGCTGCAAGCACTACGTGGAGCTGCTGGTGGCCCAGGGAGCCGACGTG CACGCCCAGGCCCGCGGCCGCTTCTTCCAGCCCAAGGATGAGGGAGGCTACTTCTACT TTGGGGAGCTGCCCTTGTCCCTGGCAGCCTGCACCAACCAGCCGCACATCGTCAACTA CCTGACAGAGAACCCTCACAAGAAAGCTGACATGAGGCGACAGGACTCGAGGGGGAA CACGGTGCTGCACGCGCTGGTGGCCATCGCCGACAACACCCGAGAGAACACCAAGTTT GTCACCAAGATGTACGACCTGCTGCTTCTCAAGTGTTCACGCCTCTTCCCCGACAGCAA CCTGGAGACAGTTCTCAACAATGATGGCCTTTCGCCTCTCATGATGGCTGCCAAGACA GGCAAGATCGGGGTCTTTCAGCACATCATCCGACGTGAGGTGACAGATGAGGACACCC GGCATCTGTCTCGCAAGTTCAAGGACTGGGCCTATGGGCCTGTGTATTCTTCTCTCTAC GACCTCTCCTCCCTGGACACATGCGGGGAGGAGGTGTCCGTGCTGGAGATCCTGGTGT

ACAACAGCAAGATCGAGAACCGCCATGAGATGCTGGCTGTAGAGCCCATTAACGAAC
TGTTGAGAGACAAGTGGCGTAAGTTTGGGGCTGTGTCCTTCTACATCAACGTGGTCTCC
TATCTGTGTGCCATGGTCATCTTCACCCTCACCGCCTACTATCAGCCACTGGAGGGCAC
GCCACCCTACCCTTACCGGACCACAGTGGACTACCTGAGGCTGGCTGGCGAGGTCATC
ACGCTCTTCACAGGAGTCCTGTTCTTCTTTACCAGTATCAAAGACTTGTTCACGAAGAA
ATGCCCTGGAGTGAATTCTCTCTTCGTCGATGGCTCCTTCCAGTTACTCTACTTCATCTA
CTCTGTGCTGGTGGTTGTCTCTGCGGCGCTCTACCTGGCTGGGATCGAGGCCTACCTGG
CTGTGATGGTCTTTGCCCTGGTCCTGGGCTGGATGAATGCGCTGTACTTCACGCGCGGG
TTGAAGCTGACGGGGACCTACAGCATCATGATTCAGAAGATCCTCTTCAAAGACCTCT
TCCGCTTCCTGCTTGTGTACCTGCTCTTCATGATCGGCTATGCCTCAGCCCTGGTCACCC
TCCTGAATCCGTGCACCAACATGAAGGTCTGTGACGAGGACCAGAGCAACTGCACGGT
GCCCACGTATCCTGCGTGCCGCGACAGCGAGACCTTCAGCGCCTTCCTCCTGGACCTCT
TCAAGCTCACCATCGGCATGGGAGACCTGGAGATGCTGAGCAGCGCCAAGTACCCCGT
GGTCTTCATCCTCCTGCTGGTCACCTACATCATCCTCACCTTCGTGCTCCTGTTGAACAT
GCTTATCGCCCTCATGGGTGAGACCGTGGGCCAGGTGTCCAAGGAGAGCAAGCACATC
TGGAAGTTGCAGTGGGCCACCACCATCCTGGACATCGAGCGTTCCTTCCCTGTGTTCCT
GAGGAAGGCCTTCCGCTCCGGAGAGATGGTGACTGTGGGCAAGAGCTCAGATGGCAC
TCCGGACCGCAGGTGGTGCTTCAGGGTGGACGAGGTGAACTGGTCTCACTGGAACCAG
AACTTGGGCATCATTAACGAGGACCCTGGCAAGAGTGAAATCTACCAGTACTATGGCT
TCTCCCACACCGTGGGGCGCCTTCGTAGGGATCGTTGGTCCTCGGTGGTGCCCCGCGTA
GTGGAGCTGAACAAGAACTCAAGCGCAGATGAAGTGGTGGTACCCCTGGATAACCTA
GGGAACCCCAACTGTGACGGCCACCAGCAGGGCTACGCTCCCAAGTGGAGGACGGAC
GATGCCCCACTGTAGGGGCCGTGCCAGAGCTCGCACAGATAGTCCAGGCTTGGCCTTC
GCTCCCACCTACATTTAGGCATTTGTCCGGTGTCTTCCCACACCCGCATGGGACCTTGG
AGGTGAGGGCCTCTGTGGCGACTCTGTGGAGGCCCCAGGACCCTCTGGTCCCCGCCAA
GACTTTTGCCTTCAGCTCTACTCCCCACATGGGGGGGCGGGGCTCCTGGCTACCTGTCT
CGCTCGCTCCCATGGAGTCACCTAAGCCAGCACAAGGCCCCTCTCCTCGAAAGGCTCA
GGCCCCATCCCTCTTGTGTATTATTTATTGCTCTCCTCAGGAAAATGGGGTGGCAGGAG
TCCACCCGCGGCTGGAACCTGGCCAGGGCTGAAGCTCATGCAGGGACGCTGCAGCTCC
GACCTGCCACAGATCTGACCTGCTGCAGCCCTGGCTAGTGTGGGTCTTCTGTACTTTGA
AGAGATCGGGGCCGCTGGTGCTCAATAAATGTTTATTCTCGGTGGAAAAAAAAAAAAA
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
AAAAAAAAA

or a partial sequence thereof, a nucleic acid which is capable of hybridising with said sequence under stringent conditions, an allelic variant or a functional variant of said

sequence or a variant of the nucleic acid on the basis of the degenerative code, wherein R may be an A or G, M may be an A or C, S may be a C or G, Y may be a C or T, K may be a G or T and W may be an A or T.

18. Nucleic acid, characterised in that it has the sequence

GGCCACGCGTCGACTAGTACGGGGGGGGGGGGGGGGTGGCRGSRGGAKCAGGACTC
GGCCGGAGGGATCAGGAAGCGGCGGCGCTGCGCCCGCGTCCTGAGGCTGAGAAGTAC
AAACAGATCTGGGTCCAGTATGGCAGATCCTGGTGATGGTCCCCGTGCAGCGCCTGGG
GAGGTGGCTGAGCCCCCTGGAGATGAGAGTGGTACCTCTGGTGGGGAGGCCTTCCCCC
TCTCTTCCCTGGCCAATCTGTTTGAGGGGGAGGAAGGCTCCTCTTCTCTTTCCCCGGTG
GATGCTAGCCGCCCTGCTGGCCCTGGCGATGGACGTCCAAACCTGCGTATGAAGTTCC
AGGGCGCTTTCCGCAAGGGGGTTCCCAACCCCATTGACCTGTTGGAGTCCACCCGGTA
CGAGTCCTCAGTAGTGCCTGGGCCCAAGAAAGCGCCCATGGATTCCTTGTTCGACTAC
GGCACTTACCGTCACCACCCCAGTGACAACAAGAGATGGAGGAGAAAGGTCGTGGAG
AAGCAGCCACAGAGCCCCAAAGCTCCTGCACCCCAGCCACCCCCCATCCTCAAAGTCT
TCAATCGGCCCATCCTCTTTGACATTGTGTCCCGGGGCTCCACTGCGGACCTAGATGGA
CTGCTCTCCTTCTTGTTGACCCACAAGAAGCGCCTGACTGATGAGGAGTTCCGGGAGC
CGTCCACGGGGAAGACCTGCCTGCCCAAGGCGCTGCTGAACCTAAGCAACGGGCGCA
ACGACACCATCCCGGTGTTGCTGGACATTGCGGAGCGCACCGGCAACATGCGTGAATT
CATCAACTCGCCCTTCAGAGACATCTACTACCGAGGCCAGACATCCCTGCACATTGCC
ATCGAACGGCGCTGCAAGCACTACGTGGAGCTGCTGGTGGCCCAGGGAGCCGACGTG
CACGCCCAGGCCCGCGGCCGCTTCTTCCAGCCCAAGGATGAGGGAGGCTACTTCTACT
TTGGGGAGCTGCCCTTGTCCCTGGCAGCCTGCACCAACCAGCCGCACATCGTCAACTA
CCTGACAGAGAACCCTCACAAGAAAGCTGACATGAGGCGACAGGACTCGAGGGGGAA
CACGGTGCTGCACGCGCTGGTGGCCATCGCCGACAACACCCGAGAGAACACCAAGTTT
GTCACCAAGATGTACGACCTGCTGCTTCTCAAGTGTTCACGCCTCTTCCCCGACAGCAA
CCTGGAGACAGTTCTCAACAATGATGGCCTTTCGCCTCTCATGATGGCTGCCAAGACA
GGCAAGATCGGGGTCTTTCAGCACATCATCCGACGTGAGGTGACAGATGAGGACACCC
GGCATCTGTCTCGCAAGTTCAAGGACTGGGCCTATGGGCCTGTGTATTCTTCTCTCTAC
GACCTCTCCTCCCTGGACACATGCGGGGAGGAGGTGTCCGTGCTGGAGATCCTGGTGT
ACAACAGCAAGATCGAGAACCGCCATGAGATGCTGGCTGTAGAGCCCATTAACGAAC
TGTTGAGAGACAAGTGGCGTAAGTTTGGGGCTGTGTCCTTCTACATCAACGTGGTCTCC
TATCTGTGTGCCATGGTCATCTTCACCCTCACCGCCTACTATCAGCCACTGGAGGGCAC
GCCACCCTACCCTTACCGGACCACAGTGGACTACCTGAGGCTGGCTGGCGAGGTCATC
ACGCTCTTCACAGGAGTCCTGTTCTTCTTTACCAGTATCAAAGACTTGTTCACGAAGAA

ATGCCCTGGAGTGAATTCTCTCTTCGTCGATGGCTCCTTCCAGTTACTCTACTTCATCTA
CTCTGTGCTGGTGGTTGTCTCTGCGGCGCTCTACCTGGCTGGGATCGAGGCCTACCTGG
CTGTGATGGTCTTTGCCCTGGTCCTGGGCTGGATGAATGCGCTGTACTTCACGCGCGGG
TTGAAGCTGACGGGGACCTACAGCATCATGATTCAGAAGATCCTCTTCAAAGACCTCT
TCCGCTTCCTGCTTGTGTACCTGCTCTTCATGATCGGCTATGCCTCAGCCCTGGTCACCC
TCCTGAATCCGTGCACCAACATGAAGGTCTGTGACGAGGACCAGAGCAACTGCACGGT
GCCCACGTATCCTGCGTGCCGCGACAGCGAGACCTTCAGCGCCTTCCTCCTGGACCTCT
TCAAGCTCACCATCGGCATGGGAGACCTGGAGATGCTGAGCAGCGCCAAGTACCCCGT
GGTCTTCATCCTCCTGCTGGTCACCTACATCATCCTCACCTTCGTGCTCCTGTTGAACAT
GCTTATCGCCCTCATGGGTGAGACCGTGGGCCAGGTGTCCAAGGAGAGCAAGCACATC
TGGAAGTTGCAGTGGGCCACCACCATCCTGGACATCGAGCGTTCCTTCCCTGTGTTCCT
GAGGAAGGCCTTCCGCTCCGGAGAGATGGTGACTGTGGGCAAGAGCTCAGATGGCAC
TCCGGACCGCAGGTGGTGCTTCAGGGTGGACGAGGTGAACTGGTCTCACTGGAACCAG
AACTTGGGCATCATTAACGAGGACCCTGGCAAGAGTGAAATCTACCAGTACTATGGCT
TCTCCCACACCGTGGGGCGCCTTCGTAGGGATCGTTGGTCCTCGGTGGTGCCCCGCGTA
GTGGAGCTGAACAAGAACTCAAGCGCAGATGAAGTGGTGGTACCCCTGGATAACCTA
GGGAACCCCAACTGTGACGGCCACCAGCAGGGCTACGCTCCCAAGTGGAGGACGGAC
GATGCCCCACTGTAGGGGCCGTGCCAGAGCTCGCACAGATAGTCCAGGCTTGGCCTTC
GCTCCCACCTACATTTAGGCATTTGTCCGGTGTCTTCCCACACCCGCATGGGACCTTGG
AGGTGAGGGCCTCTGTGGCGACTCTGTGGAGGCCCCAGGACCCTCTGGTCCCCGCCAA
GACTTTTGCCTTCAGCTCTACTCCCCACATGGGGGGGCGGGGCTCCTGGCTACCTGTCT
CGCTCGCTCCCATGGAGTCACCTAAGCCAGCACAAGGCCCCTCTCCTCGAAAGGCTCA
GGCCCCATCCCTCTTGTGTATTATTTATTGCTCTCCTCAGGAAAATGGGGTGGCAGGAG
TCCACCCGCGGCTGGAACCTGGCCAGGGCTGAAGCTCATGCAGGGACGCTGCAGCTCC
GACCTGCCACAGATCTGACCTGCTGCAGCCCTGGCTAGTGTGGGTCTTCTGTACTTTGA
AGAGATCGGGGCCGCTGGTGCTCAATAAATGTTTATTCTCGGTGGAAAAAAAAAAAAA
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
AAAAAAAAA,

wherein R may be an A or G, M may be an A or C, S may be a C or G, Y may be a C or T, K may be a G or T and W may be an A or T.

19. Nucleic acid, characterised in that it contains the sequence
ATGGCAGATCCTGGTGATGGTCCCCGTGCAGCGCCTGGGGAGGTGGCTGAGCCCCCTG
GAGATGAGAGTGGTACCTCTGGTGGGGAGGCCTTCCCCCTCTCTTCCCTGGCCAATCTG
TTTGAGGGGGAGGAAGGCTCCTCTTCTCTTTCCCCGGTGGATGCTAGCCGCCCTGCTGG

CCCTGGCGATGGACGTCCAAACCTGCGTATGAAGTTCCAGGGCGCTTTCCGCAAGGGG
GTTCCCAACCCCATTGACCTGTTGGAGTCCACCCGGTACGAGTCCTCAGTAGTGCCTGG
GCCCAAGAAAGCGCCCATGGATTCCTTGTTCGACTACGGCACTTACCGTCACCACCCC
AGTGACAACAAGAGATGGAGGAGAAAGGTCGTGGAGAAGCAGCCACAGAGCCCCAA
AGCTCCTGCACCCCAGCCACCCCCCATCCTCAAAGTCTTCAATCGGCCCATCCTCTTTG
ACATTGTGTCCCGGGGCTCCACTGCGGACCTAGATGGACTGCTCTCCTTCTTGTTGACC
CACAAGAAGCGCCTGACTGATGAGGAGTTCCGGGAGCCGTCCACGGGGAAGACCTGC
CTGCCCAAGGCGCTGCTGAACCTAAGCAACGGGCGCAACGACACCATCCCGGTGTTGC
TGGACATTGCGGAGCGCACCGGCAACATGCGTGAATTCATCAACTCGCCCTTCAGAGA
CATCTACTACCGAGGCCAGACATCCCTGCACATTGCCATCGAACGGCGCTGCAAGCAC
TACGTGGAGCTGCTGGTGGCCCAGGGAGCCGACGTGCACGCCCAGGCCCGCGGCCGCT
TCTTCCAGCCCAAGGATGAGGGAGGCTACTTCTACTTTGGGGAGCTGCCCTTGTCCCTG
GCAGCCTGCACCAACCAGCCGCACATCGTCAACTACCTGACAGAGAACCCTCACAAGA
AAGCTGACATGAGGCGACAGGACTCGAGGGGGAACACGGTGCTGCACGCGCTGGTGG
CCATCGCCGACAACACCCGAGAGAACACCAAGTTTGTCACCAAGATGTACGACCTGCT
GCTTCTCAAGTGTTCACGCCTCTTCCCCGACAGCAACCTGGAGACAGTTCTCAACAATG
ATGGCCTTTCGCCTCTCATGATGGCTGCCAAGACAGGCAAGATCGGGGTCTTTCAGCA
CATCATCCGACGTGAGGTGACAGATGAGGACACCCGGCATCTGTCTCGCAAGTTCAAG
GACTGGGCCTATGGGCCTGTGTATTCTTCTCTCTACGACCTCTCCTCCCTGGACACATG
CGGGGAGGAGGTGTCCGTGCTGGAGATCCTGGTGTACAACAGCAAGATCGAGAACCG
CCATGAGATGCTGGCTGTAGAGCCCATTAACGAACTGTTGAGAGACAAGTGGCGTAAG
TTTGGGGCTGTGTCCTTCTACATCAACGTGGTCTCCTATCTGTGTGCCATGGTCATCTTC
ACCCTCACCGCCTACTATCAGCCACTGGAGGGCACGCCACCCTACCCTTACCGGACCA
CAGTGGACTACCTGAGGCTGGCTGGCGAGGTCATCACGCTCTTCACAGGAGTCCTGTT
CTTCTTTACCAGTATCAAAGACTTGTTCACGAAGAAATGCCCTGGAGTGAATTCTCTCT
TCGTCGATGGCTCCTTCCAGTTACTCTACTTCATCTACTCTGTGCTGGTGGTTGTCTCTG
CGGCGCTCTACCTGGCTGGGATCGAGGCCTACCTGGCTGTGATGGTCTTTGCCCTGGTC
CTGGGCTGGATGAATGCGCTGTACTTCACGCGCGGGTTGAAGCTGACGGGGACCTACA
GCATCATGATTCAGAAGATCCTCTTCAAAGACCTCTTCCGCTTCCTGCTTGTGTACCTG
CTCTTCATGATCGGCTATGCCTCAGCCCTGGTCACCCTCCTGAATCCGTGCACCAACAT
GAAGGTCTGTGACGAGGACCAGAGCAACTGCACGGTGCCCACGTATCCTGCGTGCCGC
GACAGCGAGACCTTCAGCGCCTTCCTCCTGGACCTCTTCAAGCTCACCATCGGCATGG
GAGACCTGGAGATGCTGAGCAGCGCCAAGTACCCCGTGGTCTTCATCCTCCTGCTGGT
CACCTACATCATCCTCACCTTCGTGCTCCTGTTGAACATGCTTATCGCCCTCATGGGTG
AGACCGTGGGCCAGGTGTCCAAGGAGAGCAAGCACATCTGGAAGTTGCAGTGGGCCA
CCACCATCCTGGACATCGAGCGTTCCTTCCCTGTGTTCCTGAGGAAGGCCTTCCGCTCC

GGAGAGATGGTGACTGTGGGCAAGAGCTCAGATGGCACTCCGGACCGCAGGTGGTGC
TTCAGGGTGGACGAGGTGAACTGGTCTCACTGGAACCAGAACTTGGGCATCATTAACG
AGGACCCTGGCAAGAGTGAAATCTACCAGTACTATGGCTTCTCCCACACCGTGGGGCG
CCTTCGTAGGGATCGTTGGTCCTCGGTGGTGCCCCGCGTAGTGGAGCTGAACAAGAAC
TCAAGCGCAGATGAAGTGGTGGTACCCCTGGATAACCTAGGGAACCCCAACTGTGACG
GCCACCAGCAGGGCTACGCTCCCAAGTGGAGGACGGACGATGCCCCACTGTAG
or a partial sequence thereof, a nucleic acid which is capable of hybridising with said sequence under stringent conditions, an allelic variant or a functional variant of said sequence or a variant of the nucleic acid on the basis of the degenerative code.

20. Nucleic acid, characterised in that it has the sequence
ATGGCAGATCCTGGTGATGGTCCCCGTGCAGCGCCTGGGGAGGTGGCTGAGCCCCCTG
GAGATGAGAGTGGTACCTCTGGTGGGGAGGCCTTCCCCCTCTCTTCCCTGGCCAATCTG
TTTGAGGGGGAGGAAGGCTCCTCTTCTCTTTCCCCGGTGGATGCTAGCCGCCCTGCTGG
CCCTGGCGATGGACGTCCAAACCTGCGTATGAAGTTCCAGGGCGCTTTCCGCAAGGGG
GTTCCCAACCCCATTGACCTGTTGGAGTCCACCCGGTACGAGTCCTCAGTAGTGCCTGG
GCCCAAGAAAGCGCCCATGGATTCCTTGTTCGACTACGGCACTTACCGTCACCACCCC
AGTGACAACAAGAGATGGAGGAGAAAGGTCGTGGAGAAGCAGCCACAGAGCCCCAA
AGCTCCTGCACCCCAGCCACCCCCCATCCTCAAAGTCTTCAATCGGCCCATCCTCTTTG
ACATTGTGTCCCGGGGCTCCACTGCGGACCTAGATGGACTGCTCTCCTTCTTGTTGACC
CACAAGAAGCGCCTGACTGATGAGGAGTTCCGGGAGCCGTCCACGGGGAAGACCTGC
CTGCCCAAGGCGCTGCTGAACCTAAGCAACGGGCGCAACGACACCATCCCGGTGTTGC
TGGACATTGCGGAGCGCACCGGCAACATGCGTGAATTCATCAACTCGCCCTTCAGAGA
CATCTACTACCGAGGCCAGACATCCCTGCACATTGCCATCGAACGGCGCTGCAAGCAC
TACGTGGAGCTGCTGGTGGCCCAGGGAGCCGACGTGCACGCCCAGGCCCGCGGCCGCT
TCTTCCAGCCCAAGGATGAGGGAGGCTACTTCTACTTTGGGGAGCTGCCCTTGTCCCTG
GCAGCCTGCACCAACCAGCCGCACATCGTCAACTACCTGACAGAGAACCCTCACAAGA
AAGCTGACATGAGGCGACAGGACTCGAGGGGGAACACGGTGCTGCACGCGCTGGTGG
CCATCGCCGACAACACCCGAGAGAACACCAAGTTTGTCACCAAGATGTACGACCTGCT
GCTTCTCAAGTGTTCACGCCTCTTCCCCGACAGCAACCTGGAGACAGTTCTCAACAATG
ATGGCCTTTCGCCTCTCATGATGGCTGCCAAGACAGGCAAGATCGGGGTCTTTCAGCA
CATCATCCGACGTGAGGTGACAGATGAGGACACCCGGCATCTGTCTCGCAAGTTCAAG
GACTGGGCCTATGGGCCTGTGTATTCTTCTCTCTACGACCTCTCCTCCCTGGACACATG
CGGGGAGGAGGTGTCCGTGCTGGAGATCCTGGTGTACAACAGCAAGATCGAGAACCG
CCATGAGATGCTGGCTGTAGAGCCCATTAACGAACTGTTGAGAGACAAGTGGCGTAAG

TTTGGGGCTGTGTCCTTCTACATCAACGTGGTCTCCTATCTGTGTGCCATGGTCATCTTC ACCCTCACCGCCTACTATCAGCCACTGGAGGGCACGCCACCCTACCCTTACCGGACCA CAGTGGACTACCTGAGGCTGGCTGGCGAGGTCATCACGCTCTTCACAGGAGTCCTGTT CTTCTTTACCAGTATCAAAGACTTGTTCACGAAGAAATGCCCTGGAGTGAATTCTCTCT TCGTCGATGGCTCCTTCCAGTTACTCTACTTCATCTACTCTGTGCTGGTGGTTGTCTCTG CGGCGCTCTACCTGGCTGGGATCGAGGCCTACCTGGCTGTGATGGTCTTTGCCCTGGTC CTGGGCTGGATGAATGCGCTGTACTTCACGCGCGGGTTGAAGCTGACGGGGACCTACA GCATCATGATTCAGAAGATCCTCTTCAAAGACCTCTTCCGCTTCCTGCTTGTGTACCTG CTCTTCATGATCGGCTATGCCTCAGCCCTGGTCACCCTCCTGAATCCGTGCACCAACAT GAAGGTCTGTGACGAGGACCAGAGCAACTGCACGGTGCCCACGTATCCTGCGTGCCGC GACAGCGAGACCTTCAGCGCCTTCCTCCTGGACCTCTTCAAGCTCACCATCGGCATGG GAGACCTGGAGATGCTGAGCAGCGCCAAGTACCCCGTGGTCTTCATCCTCCTGCTGGT CACCTACATCATCCTCACCTTCGTGCTCCTGTTGAACATGCTTATCGCCCTCATGGGTG AGACCGTGGGCCAGGTGTCCAAGGAGAGCAAGCACATCTGGAAGTTGCAGTGGGCCA CCACCATCCTGGACATCGAGCGTTCCTTCCCTGTGTTCCTGAGGAAGGCCTTCCGCTCC GGAGAGATGGTGACTGTGGGCAAGAGCTCAGATGGCACTCCGGACCGCAGGTGGTGC TTCAGGGTGGACGAGGTGAACTGGTCTCACTGGAACCAGAACTTGGGCATCATTAACG AGGACCCTGGCAAGAGTGAAATCTACCAGTACTATGGCTTCTCCCACACCGTGGGGCG CCTTCGTAGGGATCGTTGGTCCTCGGTGGTGCCCCGCGTAGTGGAGCTGAACAAGAAC TCAAGCGCAGATGAAGTGGTGGTACCCCTGGATAACCTAGGGAACCCCAACTGTGACG GCCACCAGCAGGGCTACGCTCCCAAGTGGAGGACGGACGATGCCCCACTGTAG.

21. Recombinant vector, characterised in that it contains a nucleic acid according to one of claims 1 to 20.

22. Recombinant vector according to claim 21, characterised in that it is an expression vector.

23. Host, characterised in that it contains a vector according to claim 21 or 22.

24. Host according to claim 23, characterised in that it is a eukaryotic host cell.

25. Host according to claim 23 or 24, characterised in that it is an insect cell.

26. Host according to one of claims 23 to 25, characterised in that it is an Sf9-, HEK293- or HeLa-cell.

27. Host according to claim 23, characterised in that it is a bacteriophage.

28. Host according to claim 23, characterised in that it is a prokaryotic host cell.

29. Polypeptide, characterised in that it is coded by a nucleic acid according to one of claims 1 to 20 or a fragment, a functional variant, an allelic variant, a subunit, a

variant on the basis of the degenerative nucleic acid code, a chemical derivative thereof, a fusion protein with said polypeptide or a glycosylation variant thereof.

30. Polypeptide according to claim 29, characterised in that it is a fragment of the nonselective cation channel OTRPC4.

31. Polypeptide according to one of claims 29 and 30, characterised in that it is a functional variant of the nonselective cation channel OTRPC4.

32. Polypeptide according to one of claims 29 to 31, characterised in that it is an allelic variant of the nonselective cation channel OTRPC4.

33. Polypeptide according to one of claims 29 to 32, characterised in that it is a subunit of the nonselective cation channel OTRPC4.

34. Polypeptide according to one of claims 29 to 33, characterised in that it is a variant of the nonselective cation channel OTRPC4 on the basis of the degenerative nucleic acid code.

35. Polypeptide according to one of claims 29 to 34, characterised in that it is a chemical derivative of the nonselective cation channel OTRPC4.

36. Polypeptide according to one of claims 29 to 35, characterised in that it is a fusion protein consisting of the nonselective cation channel OTRPC4 and another protein.

37. Polypeptide according to one of claims 29 to 36, characterised in that it is a glycosylation variant of the nonselective cation channel OTRPC4.

38. Process for preparing polypeptides according to one of claims 29 to 37, characterised in that a host according to one of claims 23 to 28 is cultivated and said polypeptide is isolated.

39. Antibody protein, characterised in that it is specific for a polypeptide according to one of claims 29 to 37.

40. Process for preparing an antibody protein according to claim 39, characterised in that it comprises the following steps: a host selected from a eukaryotic or prokaryotic cell which contains one or more vectors having one or more nucleic acids specific for the antibody protein, is cultivated under conditions under which said antibody protein is expressed by said host cell and said antibody protein is isolated.

41. Use of a polypeptide according to one of claims 29 to 37 for finding blockers, activators or modulators of said polypeptides.

42. Use of a host according to one of claims 23 to 28 for finding blockers, activators or modulators of OTRPC4 channels.

43. Process for finding blockers, activators or modulators of OTRPC4, characterised in that a host according to one of claims 23 to 28 is incubated with a test substance.

44. Process according to claim 43, characterised in that a membrane current is measured, said membrane current is compared with a membrane current which is measured in said host after incubation with a known control substance or in the absence of the test substance.

45. Process according to one of claims 43 and 44, characterised in that said blocker is bound to a channel, said host is incubated with a test substance and the displacement of the blocker or activator bound to the channel by the test substance is measured.

46. Process according to one of claims 43 to 45, characterised in that a host according to one of claims 23 to 28 is incubated with a test substance, the intracellular quantity of a divalent cation is determined and said quantity of divalent cation is compared with the quantity of said divalent cation which is measured when said host is incubated with a known control or in the absence of the test substance.

47. Process according to one of claims 43 to 46, characterised in that said process is a high throughput screening (HTS) test or an ultrahigh throughput screening (UHTS) test.

48. Activator of OTRPC4 which can be found using a process according to claims 43 to 47.

49. Blocker of OTRPC4 which can be found using a process according to claims 43 to 47.

50. Modulator of OTRPC4 which can be found using a process according to claims 43 to 47.

51. Antisense nucleic acid, characterised in that it is capable of hybridising with part of a nucleic acid according to one of claims 1 to 20 under stringent conditions.

52. Antisense nucleic acid according to claim 51, characterised in that it is a ribozyme.

53. Pharmaceutical composition, characterised in that it contains a nucleic acid according to one of claims 1 to 20 together with pharmaceutically acceptable carriers or excipients.

54. Pharmaceutical composition, characterised in that it contains an antisense nucleic acid according to one of claims 51 to 52 together with pharmaceutically acceptable carriers or excipients .

55. Pharmaceutical composition, characterised in that it contains a polypeptide according to one of claims 29 to 37 together with pharmaceutically acceptable carriers or excipients.

56. Pharmaceutical composition, characterised in that it contains a vector according to one of claims 21 to 22 together with pharmaceutically acceptable carriers or excipients.

57. Pharmaceutical composition, characterised in that it contains a host according to one of claims 23 to 28 together with pharmaceutically acceptable carriers or excipients.

58. Use of a nucleic acid according to one of claims 1 to 20 for preparing a medicament for the treatment of a disease selected from among diabetes, hyperlipidaemia, hyperproteinaemia, hypertension, stroke, renal insufficiency, shock and other pathophysiological conditions characterised by hyper- and hypoosmolarity.

59. Use of an antisense nucleic acid according to one of claims 51 to52 for preparing a medicament for the treatment of a disease selected from among diabetes, hyperlipidaemia, hyperproteinaemia, hypertension, stroke, renal insufficiency, shock and other pathophysiological conditions characterised by hyper- and hypoosmolarity.

60. Use of a vector according to one of claims 21 to 22 for preparing a medicament for the treatment of a disease selected from among diabetes, hyperlipidaemia, hyperproteinaemia, hypertension, stroke, renal insufficiency, shock and other pathophysiological conditions characterised by hyper- and hypoosmolarity.

61. Use of a host according to one of claims 23 to 28 for preparing a medicament for the treatment of a disease selected from among diabetes, hyperlipidaemia, hyperproteinaemia, hypertension, stroke, renal insufficiency, shock and other pathophysiological conditions characterised by hyper- and hypoosmolarity.

62. Non-human mammal, characterised in that, in addition to its genome, it contains a nucleic acid according to one of claims 1 to 20 (transgene).

63. Non-human mammal, characterised in that, in its genome, a nucleic acid according to one of claims 1 to 20 is inactivated (gene knock-out).

64. Non-human mammal, characterised in that, in its genome, a nucleic acid according to one of claims 1 to 20 is modified (gene knock-in).

65. Process for producing a non-human mammal, characterised in that

a) embryonic stem cells of said non-human mammal are transfected with a vector which contains a nucleic acid according to one of claims 1 to 20 and permits recombination between the genomic DNA of said non-human mammal and the nucleic acid contained in the vector

b) stably transfected stem cells from step a) are isolated and these are transferred into the germline of a female animal of said non-human mammal

c) the offspring of said female animal from step b) with a male animal of the same species are analysed for animals which express the polypeptide coded by the nucleic acid from step a).

66. Process for producing a non-human mammal, characterised in that

d) embryonic stem cells of said non-human mammal are transfected with a vector which contains a nucleic acid which is capable of hybridising with a nucleic acid according to one of claims 1 to 20 under stringent conditions and is inactivated by insertion of an additional nucleic acid sequence and permits recombination between the genomic DNA of said non-human mammal and the nucleic acid contained in the vector

e) stably transfected stem cells from step d) are isolated and these are transferred into the germline of a female animal of said non-human mammal

f) the offspring of said female animal from step e) with a male animal of the same species are analysed for animals which express the polypeptide coded by the nucleic acid from step d) only slightly or not at all.

67. Process for producing a non-human mammal, characterised in that

g) embryonic stem cells of said non-human mammal are transfected with a vector which contains a nucleic acid which is capable of hybridising with a nucleic acid according to one of claims 1 to 20 under stringent conditions and is modified by insertion of an additional nucleic acid sequence and permits recombination between the genomic DNA of said non-human mammal and the nucleic acid contained in the vector

h) stably transfected stem cells from step g) are isolated and these are transferred into the germline of a female animal of said non-human mammal

i) the offspring of said female animal from step h) with a male animal of the same species are analysed for animals which express the polypeptide coded by the nucleic acid from step g).

68. Use of a modulator, activator, or inhibitor of OTRPC4 for the regulation of the osmolarity of body fluids.

69. Use according to claim 68, wherein the body fluid is cerebrospinal fluid, intraocular fluid, or saliva.

70. Pharmaceuticall composition comprising a modulator, activator, or inhibitor of OTRPC4, and a pharmaceutically acceptable carrier, excipient, or diluent.